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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,221	02/19/2004	Steven J. Carpenter	Roto-Finish C-57A	5300
23474	7590	06/09/2005	EXAMINER	
FLYNN THIEL BOUTELL & TANIS, P.C.			SHAKERI, HADI	
2026 RAMBLING ROAD			ART UNIT	
KALAMAZOO, MI 49008-1699			PAPER NUMBER	

3723

DATE MAILED: 06/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/782,221

Applicant(s)

CARPENTER, STEVEN J.

Examiner

Hadi Shakeri

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-40, 42 and 45-54 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19-37, 42, 49 and 50 is/are allowed.
- 6) ☒ Claim(s) 38-40, 45, 46 and 51-54 is/are rejected.
- 7) ☒ Claim(s) 47 and 48 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 021904.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

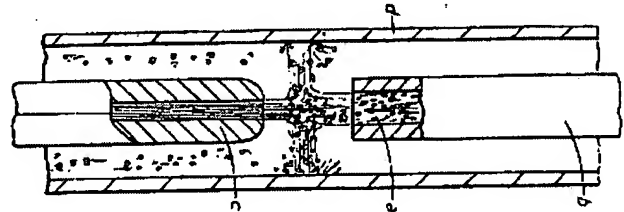
Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 51-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vauxhall Motors Limited, British Patent No. 631,417.

British Patent '417 discloses a method for treatment of metallic and like hard surfaces by impingement of high-speed particles meeting all the steps of the claims, i.e., providing a workpiece



having an elongated interior chamber (p), positioning first and second nozzles (a) (c) within the chamber so that discharge nozzles are positioned closely adjacent and directly opposed each other, supplying cylindrical pressurized streams to the nozzles, simultaneously discharging opposed streams from the discharge openings impacting one another and deflecting radially outwardly in a surrounding annular pattern impacting the interior and simultaneously moving the nozzles members, while maintaining a fixed relation, progressively treating the boundary wall; except for disclosing supplying "equal" streams to the nozzles both having solid abrasives.

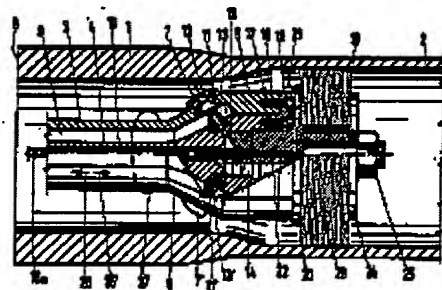
It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the method of GB '417 by supplying streams of abrasives and air through both nozzles (inherently meeting the "equal" limitations for the radial deflection to be vertical) in applications where stronger abrasion is required like un-coating rust or paint from the interior surface.

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It is noted that the steps of setting a velocity range, air pressure and moving the nozzles back and forth to enhance the operation, are considered modifications well within the knowledge of one of ordinary skill in the art in enhancing the operation, dependent on the workpiece/operational parameters and/or optimum range modifications, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

3. Claims 38, 39 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vauxhall Motors Limited, British Patent No. 631,417 (as modified above) in view of Von Borcke et al. (4,995,201).

British Patent '417 as indicate above in section 4 meets all of the claims limitations, except for disclosing a workpiece having ends partially closed or with a radially enlarged portion. Pipes having radially enlarged portion or having ends partially closed are known as evident by Van Borcke et al.



Application of the modified method of GB '417 (see section 4 above) to pipes as disclosed by Van Borcke et al., modification well within the knowledge of one of ordinary skill in the art depending on the intended use and/or workpiece/operational parameters meets all of the limitations of the above claims.

It is noted that the step of initially positioning the discharge openings with the spacing of one inch is dependent on the workpiece and operational parameters, e.g., for a small pipe. It would have been obvious to one having ordinary skill in the art at the time the invention was made to initially position the nozzles at one inch, e.g., for application on small diameter pipes, which would involve only routine skill in the art.

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4. Claims 40 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB '417 in view of Von Borcke et al. as applied to claim 45 above further in view of Cook et al.

GB '417 as applied to claim 1 above meets all the limitations of the above claims, except for disclosing supplying the fluid without the abrasives for removal of debris. Cook et al. teaches a method in which after supplying abrasive solution through a nozzle (14), high-pressure water without the abrasive is supplied through the nozzle (14) for washing and cleaning the surface. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to further modify the modified method of Saunders with supplying pure water after a treatment process as taught by Cook et al. to rinse the workpiece.

Allowable Subject Matter

5. Claims 19-37, 42, 49 and 50 are allowed.
6. Claims 47 and 48 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. The following is a statement of reasons for the indication of allowable subject matter: The step of modifying the speed with the larger and smaller portions of the interior chamber and chamber having sideways passages and/or interior sections as recited places the indicated claims in condition for allowance.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Response to Arguments

9. Applicant's arguments filed 03/24/05 have been fully considered but they are not persuasive.

The amended claim 38 does not include the limitations of the previously indicated allowable claim 44 (now canceled) e.g., modifying the movement per diameter of the sections.

The argument regarding motivation to modify GB '417 with respect to identical streams are not persuasive. The examiner's position regarding the modification is clear from the record that modifying the prior art for a particular application wherein a stronger abrasion is required, e.g., un-coating rust or paint from the interior surface, is within the knowledge of one of ordinary skill in the art, this modification would result with two identical nozzles discharging identical streams of abrasives which would radially deflect, and the argument that GB '417 is misleading does not change the position taken.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the

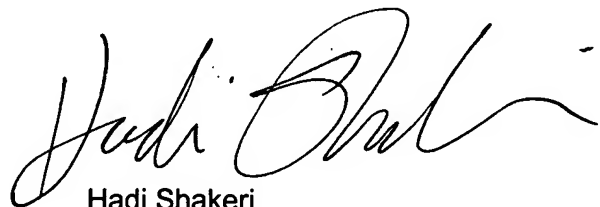
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applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hadi Shakeri whose telephone number is (571) 272-4495. The examiner can normally be reached on Monday-Friday.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Hadi Shakeri', with a stylized flourish at the end.

Hadi Shakeri
Primary Examiner
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June 4, 2005